

DLX 12
DLX 12M
DLX 15
DLX 15M
DLX 153
DLX 215
DLX 15B
DLX 18B
DLX 218B



DLX™ Series



OPERATING MANUAL AND USER GUIDE

DLX™ Series

IMPORTANT WARNINGS & SAFETY INSTRUCTIONS

1. READ ALL INSTRUCTIONS carefully and become familiar with the features and functions of these products before operating them.

2. RETAIN THESE INSTRUCTIONS for future reference.

3. COMPLY WITH ALL WARNINGS – All warnings and instructions for this product should be adhered to.

4. USE WITH AMPLIFIERS – In order to avoid damage to drivers and other equipment, it is advisable to establish and follow a routine for powering up and powering down a sound system. With all system components connected, turn on source equipment (mixers, signal processors, record and playback units, etc.) **BEFORE** powering up amplifiers. Transient voltages from powering up source equipment can damage speakers if amplifiers are already turned on. Make sure that amplifier volumes are set to their minimum settings and power up any system amplifiers **LAST**. It is recommended that all system components be allowed to stabilize for several seconds before any source signals are introduced or level setting adjustments are made. Similarly, when shutting systems down, turn all amplifiers off first, before powering down any other system components.

5. CABLES – Do not use shielded or microphone cables for connection between amplifiers and speakers. Use only approved speaker cables with proper connectors.

6. CAUTION – These professional loudspeaker systems are capable of generating very high sound pressure levels. Use care with placement and operation to avoid exposure to excessive volume levels. Permanent hearing damage can result when operated to extreme levels.

7. SERVICE – There are no user serviceable parts inside this product. Users should not attempt to service this product. Warranty nullification could result if this is attempted.

DLX™ Series

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DLX™ Series

WHAT ABOUT THE DLX SERIES?

Wharfedale DLX™ Series sound reinforcement speakers are designed for demanding applications, i.e. portable and fixed installation concert venues.

The DLX™ Series loudspeakers are high quality speaker systems designed to provide the best sound in a powerful, feature laden, easy to use package. They are designed to provide transparent and accurate sound reproduction or reinforcement. The 50.8mm (2") Titanium high frequency drivers project crystal clear high frequencies. A proprietary 90° x 45° High Frequency Horn delivers the high frequencies in a well defined, even coverage pattern. Dynamic passages, such as the crack of a snare drum or the report of a cannon, come through just like the real thing.

The DLX Series is very flexible in application. With its heavy duty components and the ability to switch from passive mode to bi-amp mode with the flip of a switch, the DLX can rise to any sound reinforcement challenge. The DLX Series subwoofers have high pass outputs (in FULL RANGE mode) to allow you to keep your equipment count low and your flexibility high – One channel of an amplifier with a kicking full range system attached.

DLX™ Series

INTRODUCTION

Thank You

Wharfedale **DLX™ Series** loudspeakers are the result of many years of experience in the use, design and manufacturing of professional loudspeaker products. We take great pride in engineering and building every Wharfedale Pro loudspeaker and wish to thank you for entrusting us with your sound.

From the time Gilbert Briggs built his first loudspeaker in 1932, to the present, Wharfedale Loudspeakers have maintained the same standard of quality in components, workmanship and performance. Actually, Wharfedale is one of a few present day manufacturers that design, engineer and build all of their own transducers.

Please take a few minutes to read this manual completely in order to ensure that you get the most out of your **DLX™ Series** Loudspeaker system.

DLX™ SERIES OVERVIEW:

The DLX™ Series are powerful, accurate, high quality loudspeaker systems with low distortion that were designed to deliver high quality sound for the best value. From the DLX-12 to the DLX-153 plus three high power subs, you have what it takes to assemble the system that your music deserves.

An important factor in loudspeakers is the smoothness of the sound coverage. Many speakers that may sound acceptable in the horizontal plane have problems in the vertical plane. The DLX™ speakers exhibit very smooth and well-behaved sound dispersion characteristics in both the horizontal and vertical planes making positioning and set-up less critical. Everyone in the room will hear the same quality sound. Because of the multi-faceted cabinet design, the DLX speakers can be positioned on the floor as a stage monitor or mounted .

The DLX-218B subwoofer is a dual chamber bass reflex bass cabinet. The switch on the input panel allows you to use the DLX-218 as a dual subwoofer at 4 ohms or by switching to DISCRETE mode, the DLX-218B acts as two separate woofers – each at 8 ohms and with their own input signal and frequency shaping.

DLX™ Series

FEATURES

- ❖ **2-way / 3-way trapezoidal reflex systems**
- ❖ **Road tough modular subwoofer systems**
- ❖ **2 inch (50.8mm) Titanium diaphragm compression drivers**
- ❖ **Low distortion, high power cast frame woofers**
- ❖ **90° x 45° High Frequency Elliptical Wave Guide (EWG)**
- ❖ **Bi-amp/ passive operation via recessed switch**
- ❖ **High slope crossover with high voltage components**
- ❖ **Pro-tech® (HF) driver protection**
- ❖ **High power 4" voice coil subwoofers**
- ❖ **Rugged black carpet & steel handles**
- ❖ **Integrated stand adapter**
- ❖ **4 or 8 Ohm options(only DLX-12,DLX-15,DLX-15B,DLX-18B)**
- ❖ **NL4 speaker inputs**

DLX™ Series

SETTING UP/ SPEAKER PLACEMENT

The uniform dispersion of the **DLX™ Series** makes it easy to position the speakers where you need them, rather than trying to rearrange the room to accommodate the sound system. And the multi-faceted cabinet with mounting hardware makes the job of installing the speakers that much easier. For the best coverage and highest quality sound, the speakers should be located above head level.

When you don't think you are getting all the bass you need, the DLX series has three (3) subs from which to choose; DLX-15B & DLX-18B are reflex subwoofers that give you the lowest frequencies and the punch you need. The DLX-218B is a straight forward, no nonsense 18-inch bass double reflex subwoofer with exceptional low frequency response.

CONNECTIONS/ WIRING

Connecting the **DLX™ Series** to your system is easy. The rear panel includes two (2) parallel NL4. Run your speaker wires from your amplifier to the speaker; you can use either input connector. Use the correct gauge of stranded insulated speaker cable according to the power handling ability of your DLX™ Series cabinet. It is always advisable to use heavier gauge (lower number) cables on longer runs. Be sure to connect your speakers in proper polarity (what many refer to erroneously, as *phase*). This means that in normal Full Range operation, connect one end of the same wire to the + or Red terminal on the amplifier and the other end to the +1 on the NL4 connector. The other wire is connected to the -1 pin on the NL4 connector.

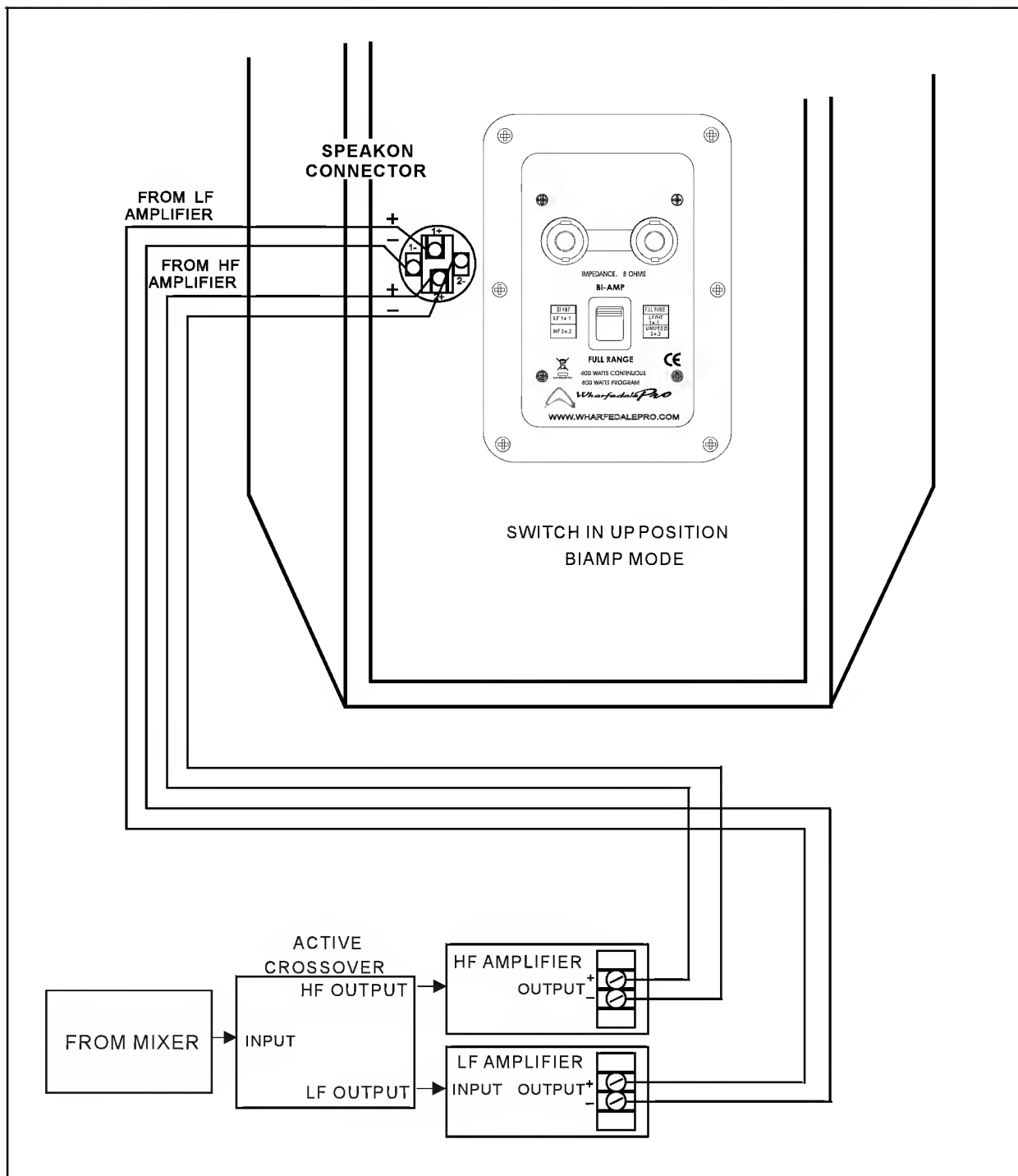
The DLX Series can be used in bi-amp mode. For this you will need a versatile electronic Processor crossover, For a more powerful and more precise sound reinforcement system you can run separate amplifiers to the Low Frequency section and the High Frequency sections (See page 6 A: Bi-Amp Processor Settings for crossover curves and settings).

Appendix B: DLX Crossover Block Diagrams shows you the circuits of the crossovers in Full Range and Bi-amp modes. You use a 4-conductor, 14 Gauge (AWG) or better, stranded speaker cable with color coded wires. In Bi-amp mode, the internal crossover is switched out of the circuit. After making certain that the switch is securely in the BI-AMP setting, connect the speaker wires to the + or Red terminal on the amplifier for the **low frequencies** and the +1 on the NL4 connector. The other wire is connected to ground or '-' terminal on the amplifier to the -1 pin on the NL4 connector. Connect the other speaker wires to the + or Red terminal on the amplifier for the **high frequencies** and the other end to the +2 on the NL4 connector. The other wire is connected to the -2 pin on the NL4 connector.

<p>CAUTION: MAKE SURE THE SWITCH IS IN THE BI-AMP POSITION BEFORE POWERING UP YOUR AMPS. YOU MAY DAMAGE THE SPEAKER AND AMPLIFIER IF THE SWITCH IS ON THE WRONG POSITION</p>

DLX™ Series

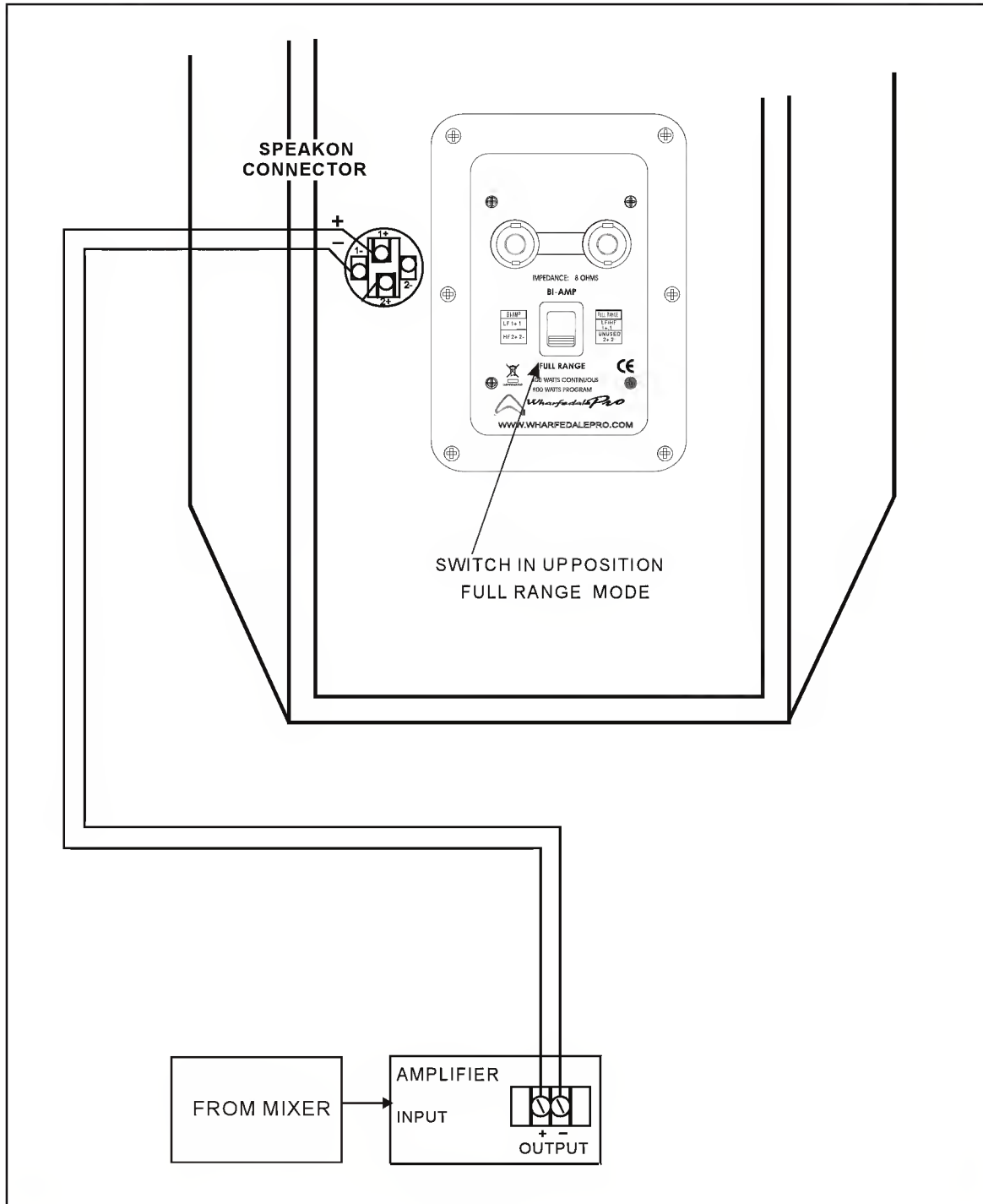
DLX-12/12M/15/15M/153/215 BI-AMPLIFIED MODE



DLX™ Series

QUICK START-UP

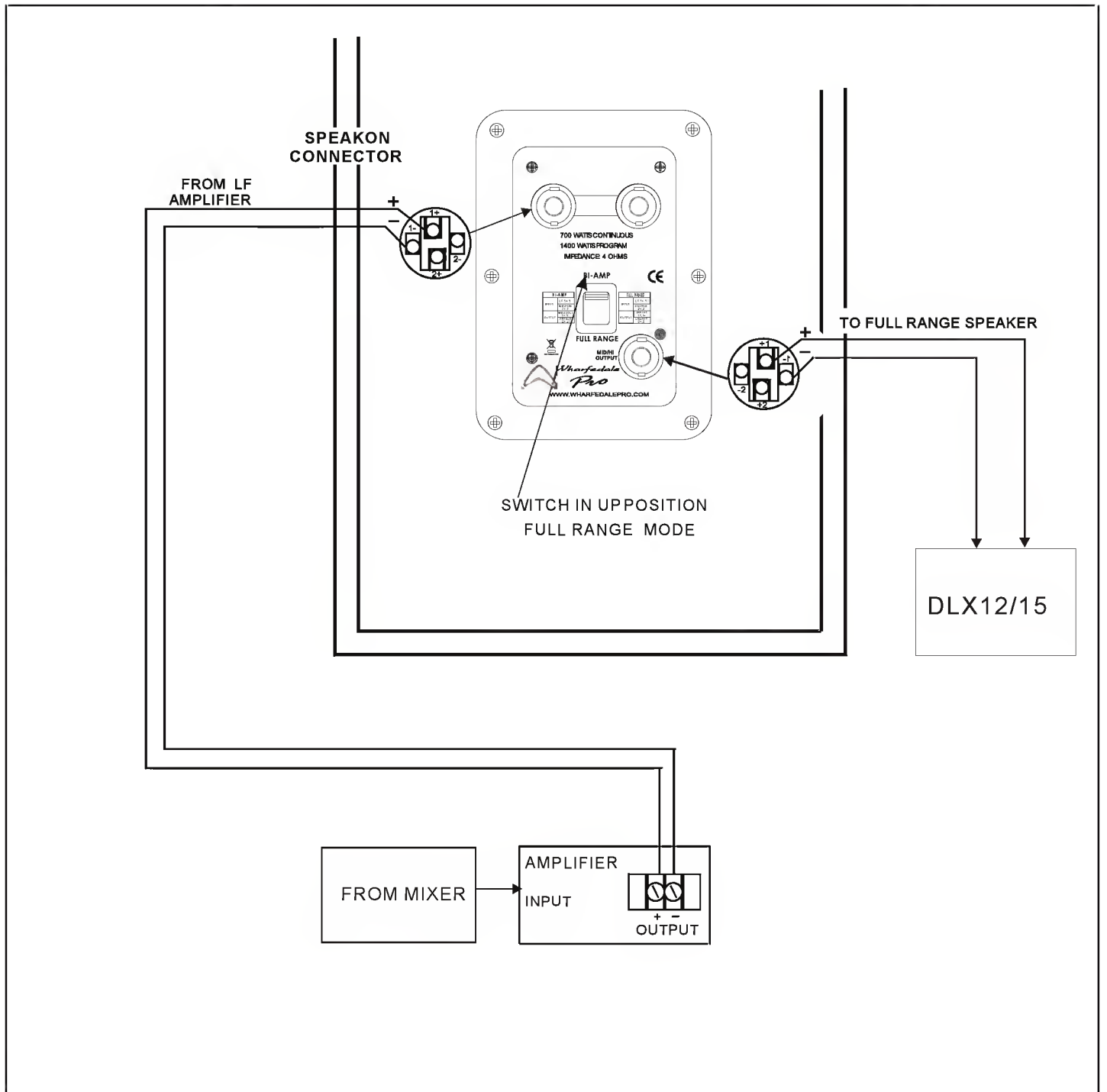
DLX-12/12M/15/15M/153/215 FULL RANGE MODE



DLX™ Series

QUICK START-UP

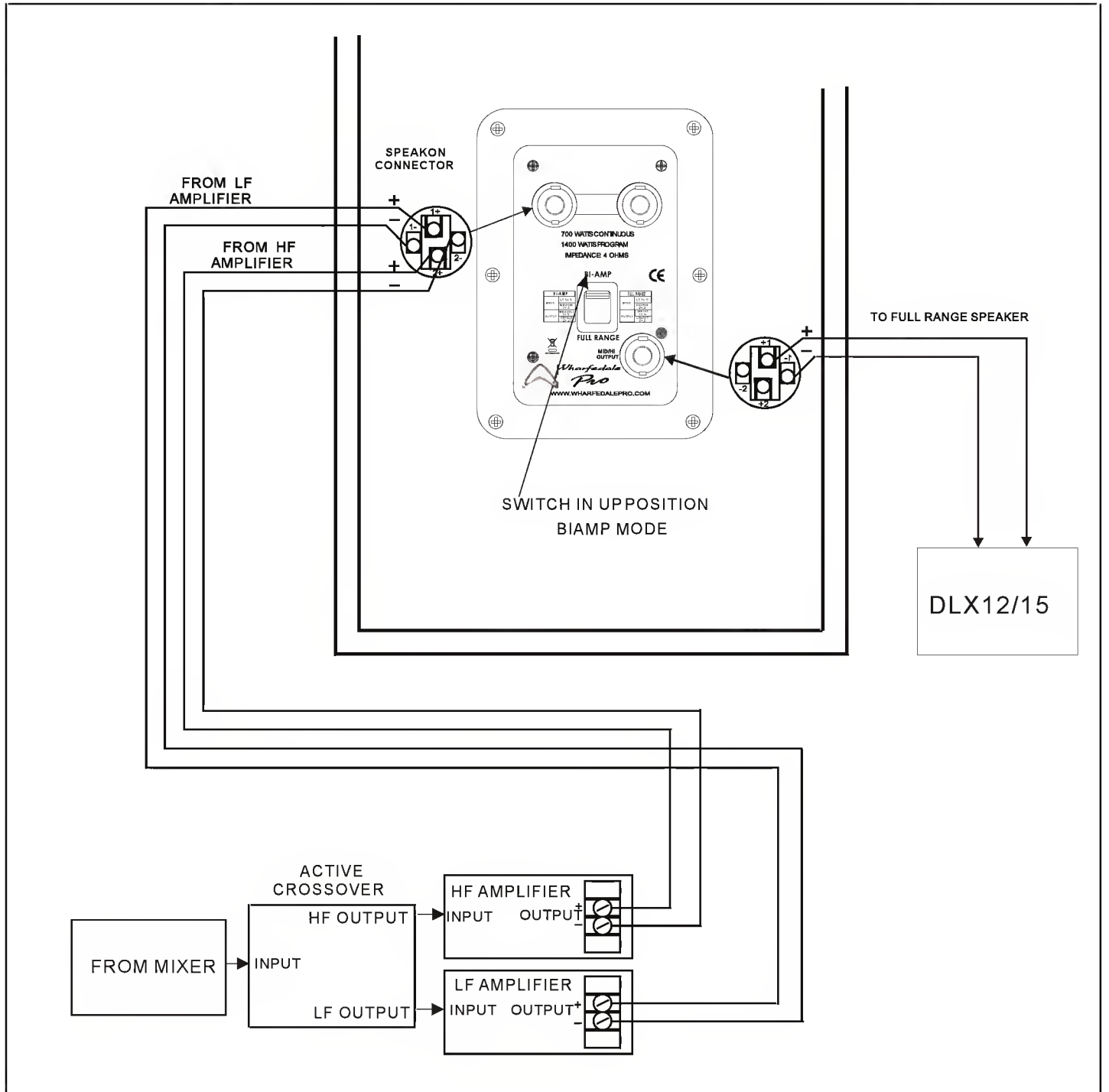
DLX-15B/18B SUBWOOFER FULL RANGE MODE



DLX™ Series

QUICK START-UP

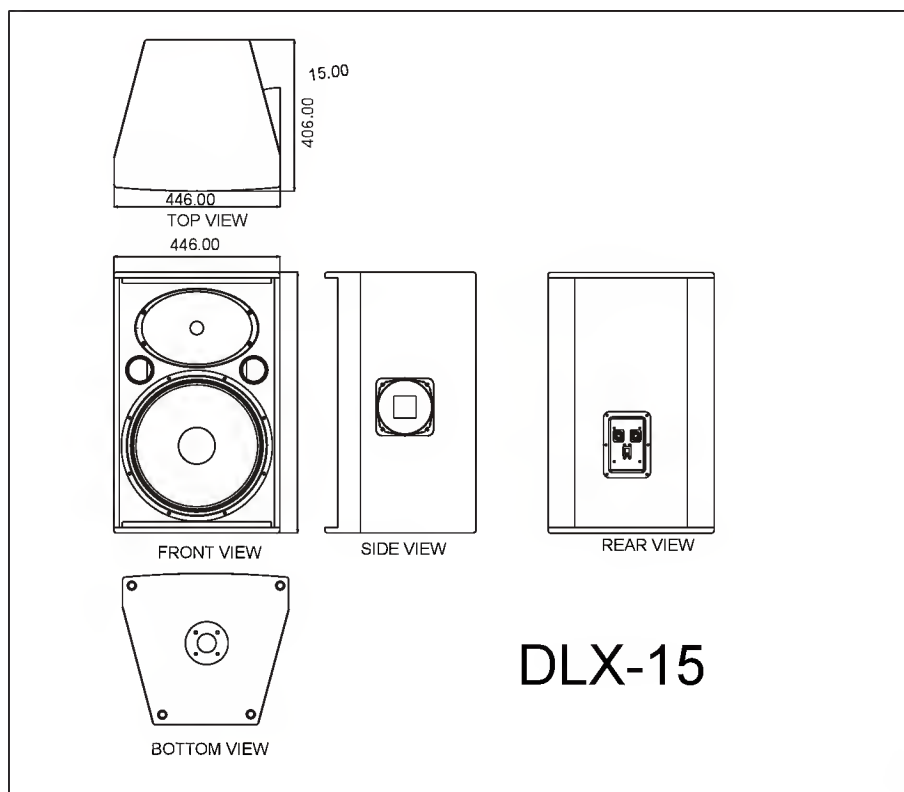
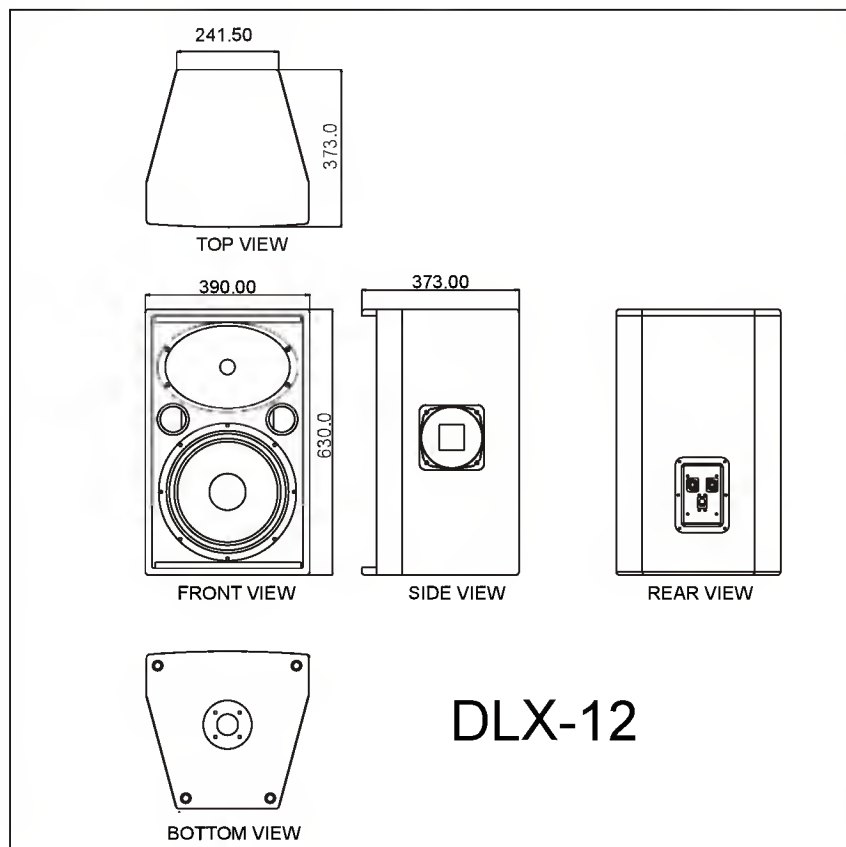
DLX-15B/18B SUBWOOFER BI-AMPLIFIED MODE



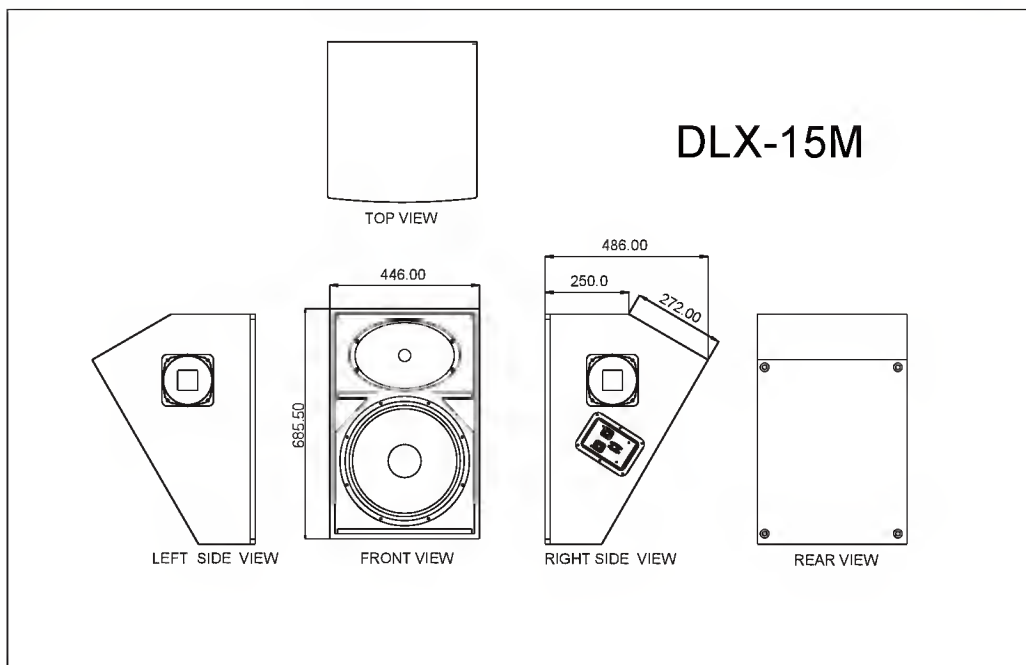
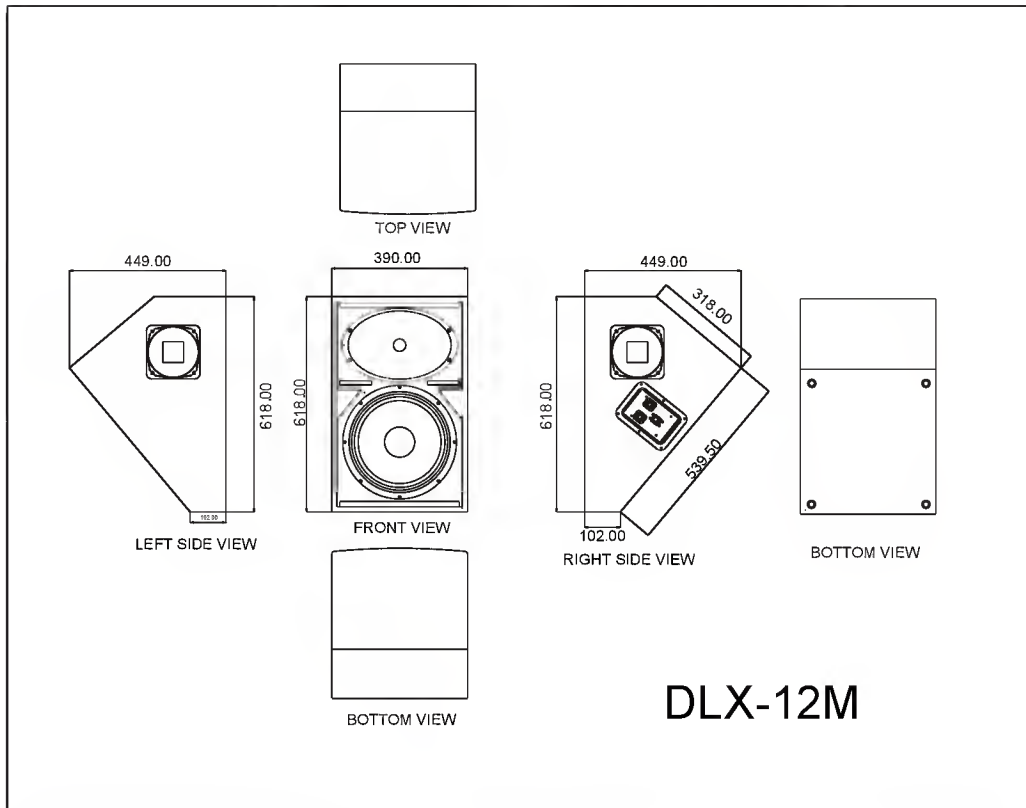
WHARFEDALE PRO LOUDSPEAKER DATA		DLX model								
MODEL	DLX-12	DLX-15	DLX-12M	DLX-15M	DLX-153	DLX-215	DLX-15B	DLX-18B	DLX-218B	
Features	2-way	2-way	2-way Monitor	2-way Monitor	3-way	Quasi 3-way	Reflex subwoofer	Reflex subwoofer	Double Reflex subwoofer	
FREQUENCY RESPONSE @ +/- 3 dB	60-20kHz	50-20kHz	60-20kHz	55-20kHz	45-20kHz	45-20kHz	BI-AMP:42-2KHz PASSIVE:42-150Hz	BI-AMP:38-1.5KH PASSIVE:38-150Hz	30-1.5kHz	
SENSITIVITY 1w@1m(dB)2.83v	97dB	98dB	97dB	98dB	100dB	101dB	98dB	99dB	100dB	
COVERAGE Horiz.	90°	90°	90°	90°	90°	90°				
COVERAGE vert.	45°	45°	45°	45°	45°	45°				
POWER HANDLING(watts)									Switchable:Parallel or Discrete	
continuous	400	500	400	500	550	1000	700	800	Parallel:1600W Discrete:800W	
music	800	1000	800	1000	1100	2000	1400	1600	3200W 1600W	
peak	1600	2000	1600	2000	2200	4000	2800	3200	6400W 3200W	
MAX SPL (dB)	129dB	131dB	129dB	131dB	133dB	137dB	132dB	134dB	138dB	
SYSTEM IMPEDANCE	FULL RANGE:4 or 8Ω BI-AMP LF:4 or 8Ω BI-AMP HF: 8Ω	FULL RANGE:4 or 8Ω BI-AMP LF:4 or 8Ω BI-AMP HF: 8Ω	FULL RANGE: 8Ω BI-AMP LF: 8Ω BI-AMP HF: 8Ω	FULL RANGE: 8Ω BI-AMP LF: 8Ω BI-AMP HF: 8Ω	FULL RANGE: 8Ω BI-AMP LF: 8Ω BI-AMP HF: 8Ω	FULL RANGE: 8Ω BI-AMP LF: 8Ω BI-AMP HF: 8Ω	FULL RANGE: 4Ω BI-AMP LF: 4Ω BI-AMP HF: 8Ω	FULL RANGE:4 or 8Ω BI-AMP LF:4 or 8Ω	FULL RANGE:4 or 8Ω BI-AMP LF:4 or 8Ω	PARALLEL :4Ω DISCRETE :8ΩX2
LF DRIVER SIZE-INCHES	12"	15"	12"	15"	15"	2X15"	15"	18"	2X18"	
MF DRIVER SIZE-INCHES					6"					
H F SECTION										
impedance(Ω)	8	8	8	8	8	8				
coil size(mm/inches)	50/2"	50/2"	50/2"	50/2"	50/2"	50/2"				
exit size(mm/inches)	35/1.4"	35/1.4"	35/1.4"	35/1.4"	35/1.4"	35/1.4"				
diaphragm matl	Titanium	Titanium	Titanium	Titanium	Titanium	Titanium				
HF HORN type	Elipctical	Elipctical	Elipctical	Elipctical	Elipctical	Elipctical				
HF PROTECT TYPE	bulb	bulb	bulb	bulb	bulb	bulb				
CROSSOVER SECTION										
crossover Frequency	1.8kHz	1.8kHz	1.8kHz	1.8kHz	800Hz/2.3kHz	1.8kHz				
crossover modes:	Bi-amp/passive ,externally switchable								switchable:+1/-1or +1/-1,+2,-2	
									Externally/switchable:parallel or discrete	
system Fb	60Hz	50Hz	60Hz	55Hz	45Hz	45Hz	42Hz	38Hz	30Hz	
Hi pass out (passive)							120Hz(passive)	120Hz(passive)		
ENCLOSURE TYPE	trapezoidal	trapezoidal	rectangle	rectangle	trapezoidal	trapezoidal	rectangle	rectangle	rectangle	
finish colour	carpet black	carpet black	carpet black	carpet black	carpet black	carpet black	carpet black	carpet black	carpet black	
thikness(mm)	15	15	15	15	15	15	15	15	18	
construction materials	MDF/particle	MDF/particle	MDF/particle	MDF/particle	MDF/particle	ply/particle	MDF/particle	MDF/particle	MDF/particle	
stand adaptor	yes	yes	no	no	no	no	yes	yes	no	
handle quantity	2	2	2	2	3	2	2	2	4	
grille:		1.5mm full steel (black)								
back pannel:										
input connector type	2xNeutrik NL4 Speakon	2xNeutrik NL4 Speakon	2xNeutrik NL4 Speakon	2xNeutrik NL4 Speakon	2xNeutrik NL4 Speakon	2xNeutrik NL4 Speakon	2xNeutrik NL4 Speakon	2xNeutrik NL4 Speakon	2xNeutrik NL4 Speakon	
hi pass out connector type							1xNeutrik NL4 Speakon	1xNeutrik NL4 Speakon		
PRODUCT DIMS. (mm)										
H	630	700	449(SITU)	493(SITU)	896	1135	471	539	541	
W (front/Rear)	390/241.2	446/281.4	390	446	446/281.4	488/299.6	471	539	1041	
D	373	406	618	685	406	450	600	650	650	
CARTON DIMS. (mm)										
H	687	761	440	496	959	1203	534	610	604	
W(front/Rear)	459/271.5	515/315	664	732	515/315	560/334	517	591	1087	
D	409	450	478	521	450	496	646	696	696	
Weight Net(kg)	27.5	29.7	26	27	39.0	52	35	42.2	74.89	
Gross Net(kg)	29.74	33	28.5	29	42.0	56.9	37.5	44.6	78.9	

DLX™ Series

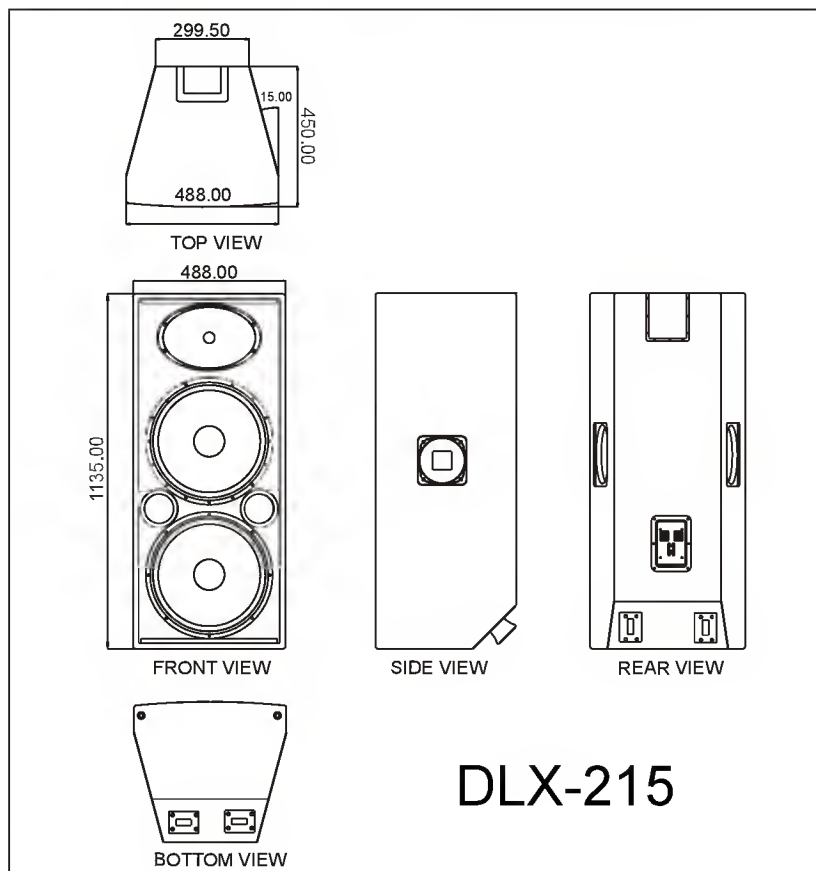
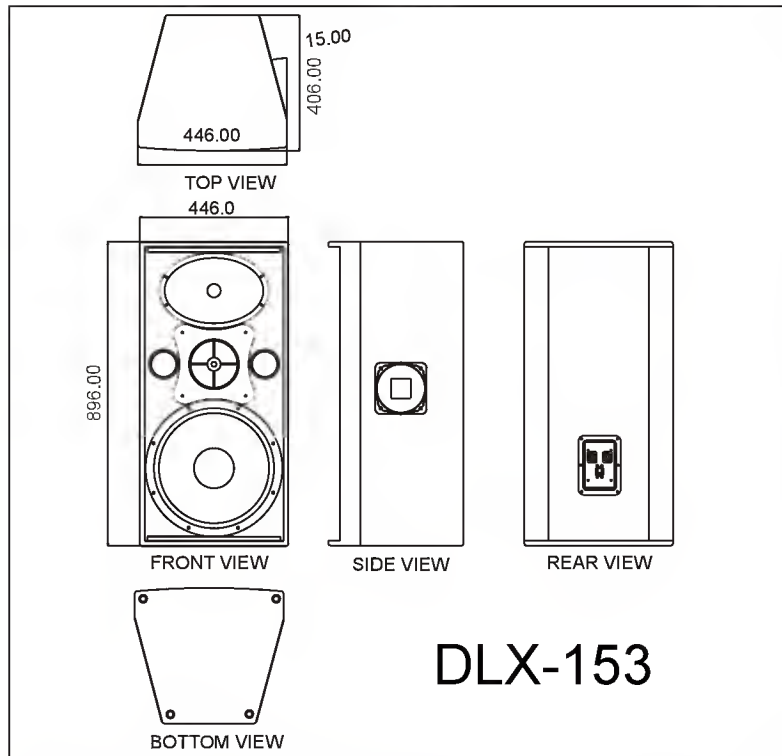
DIMENSIONS



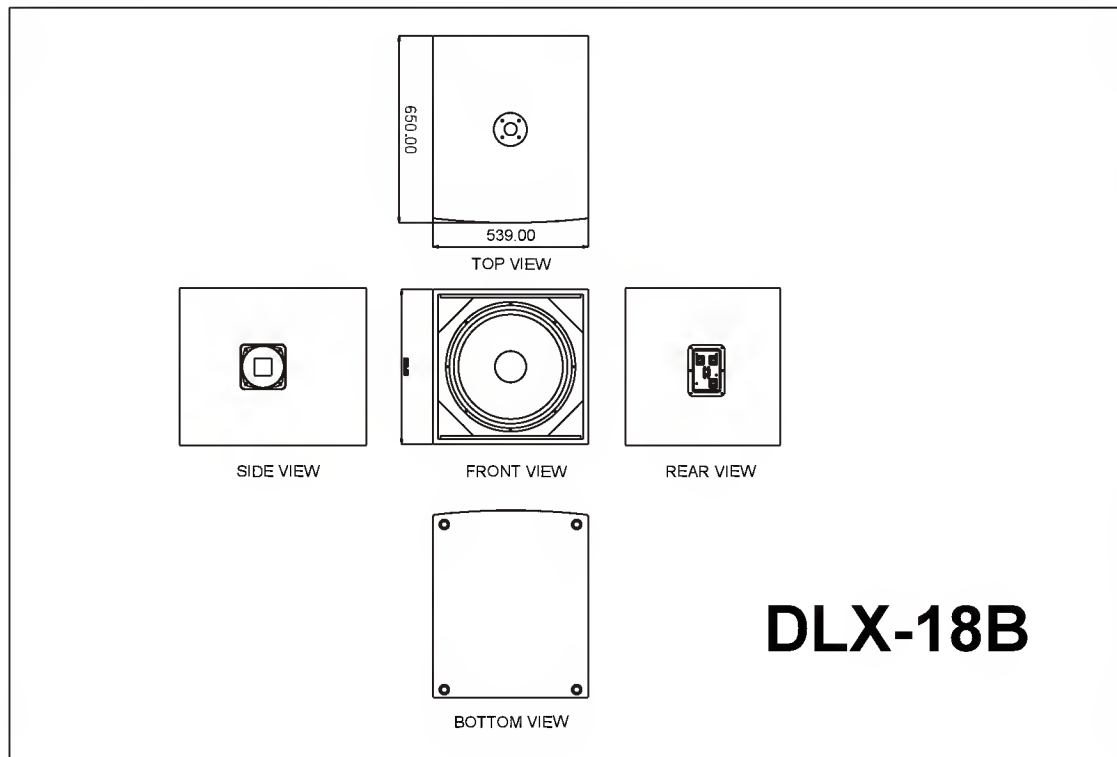
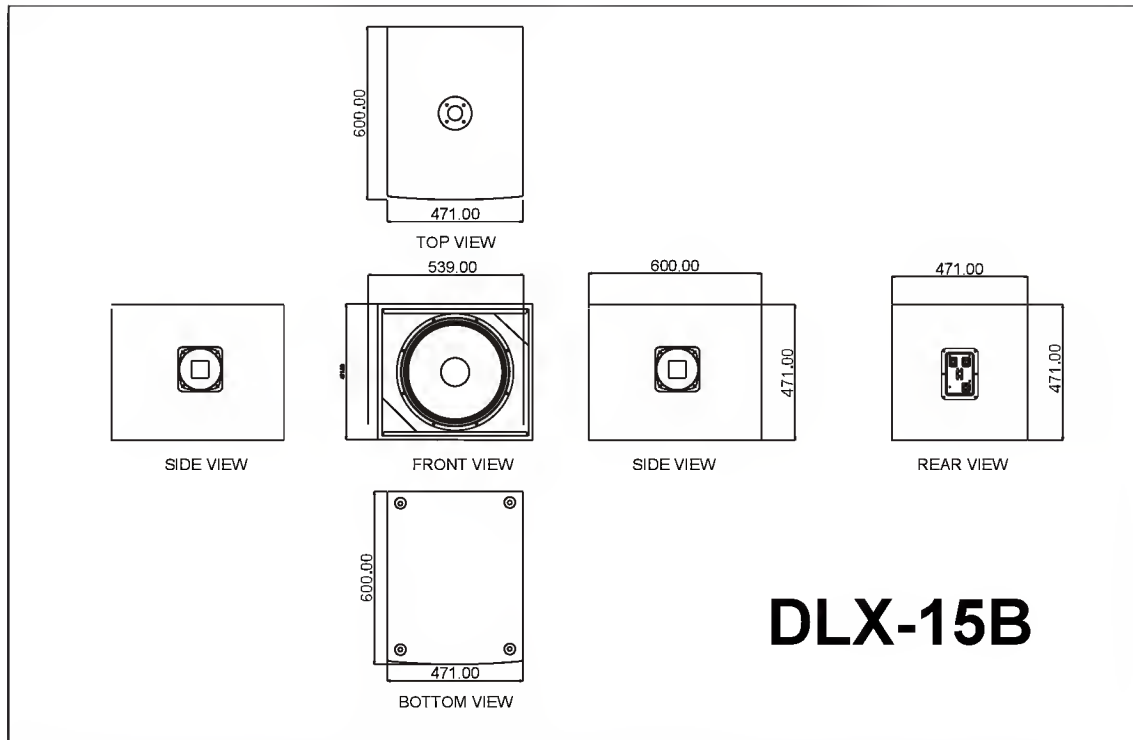
DLX™ Series



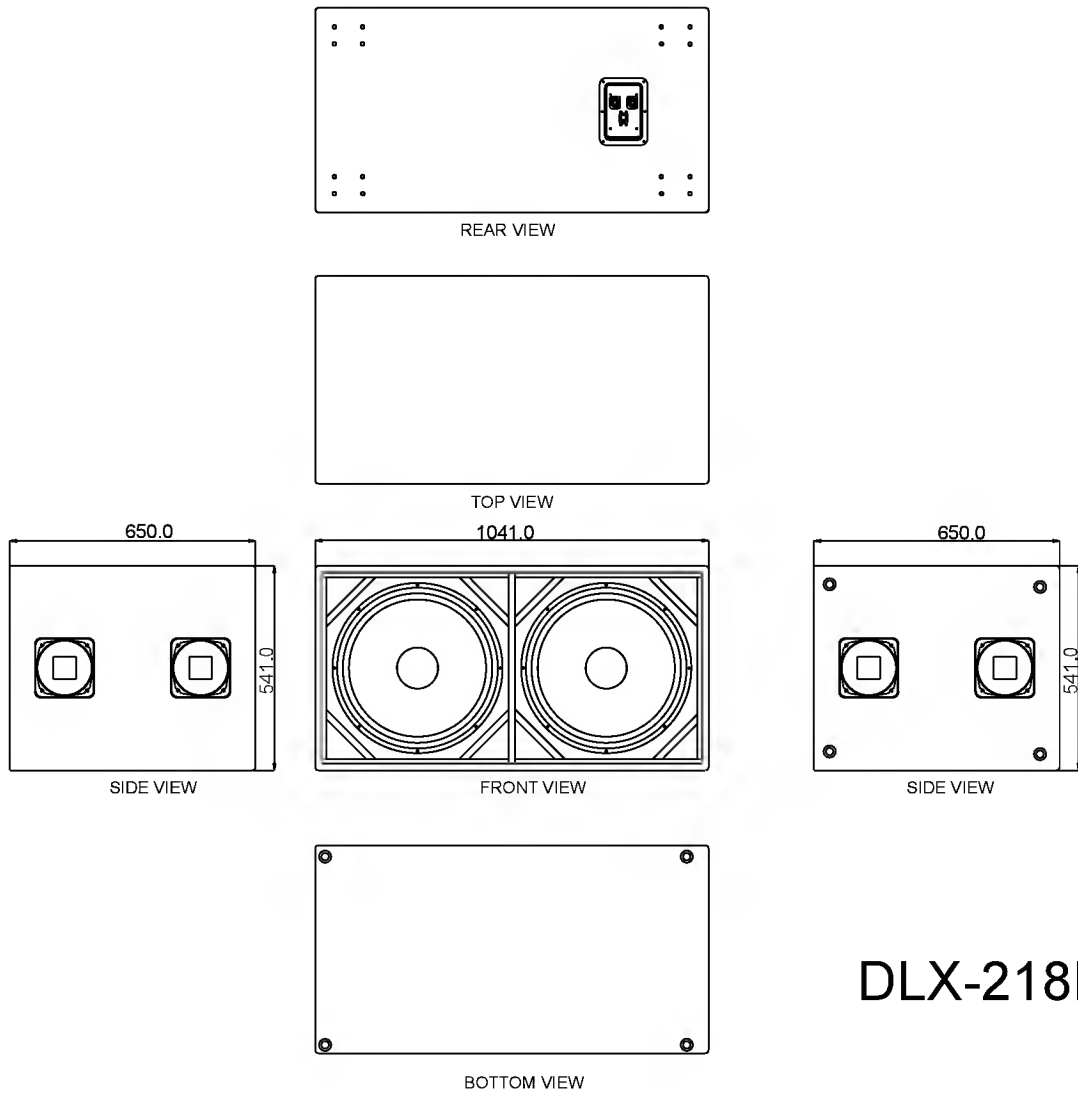
DLX™ Series



DLX™ Series



DLX™ Series

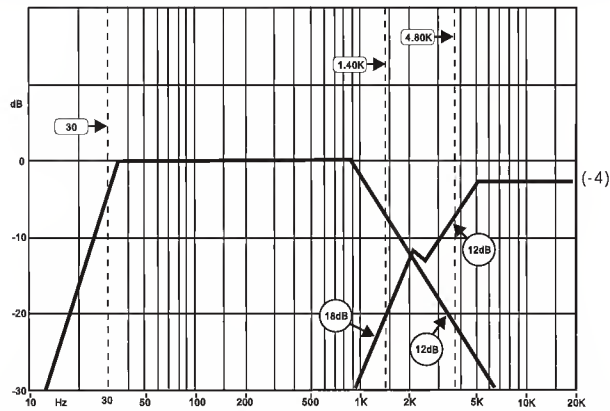


DLX-218B

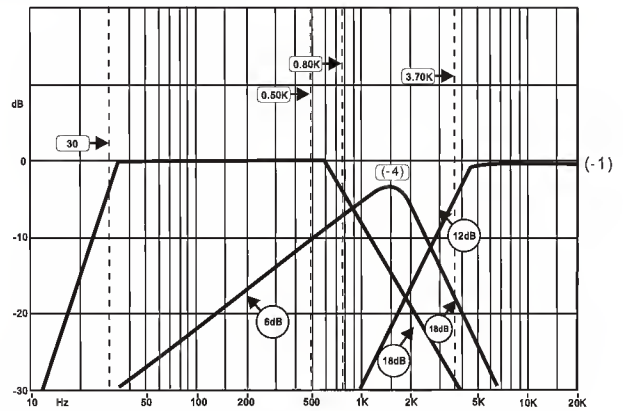
DLX™ Series

BI-AMP Processor Settings Guide

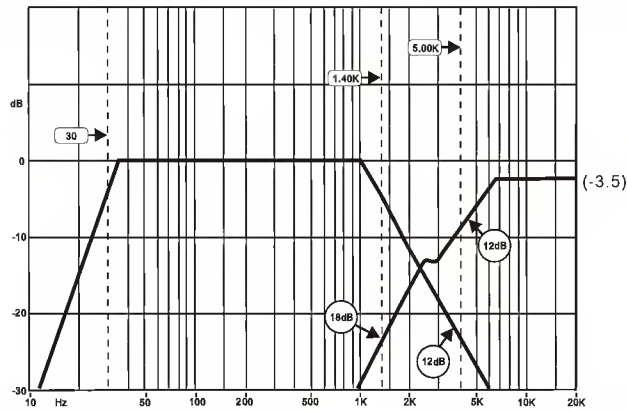
DLX-12



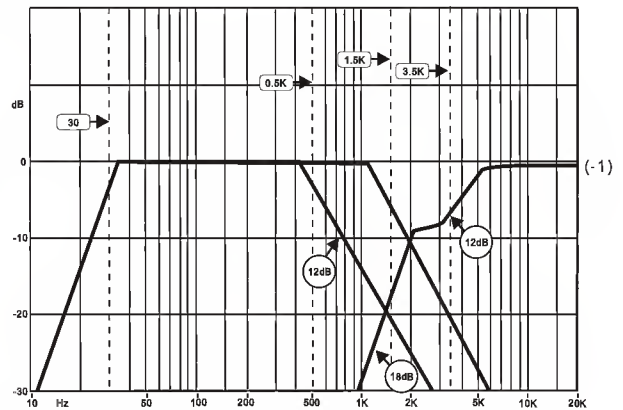
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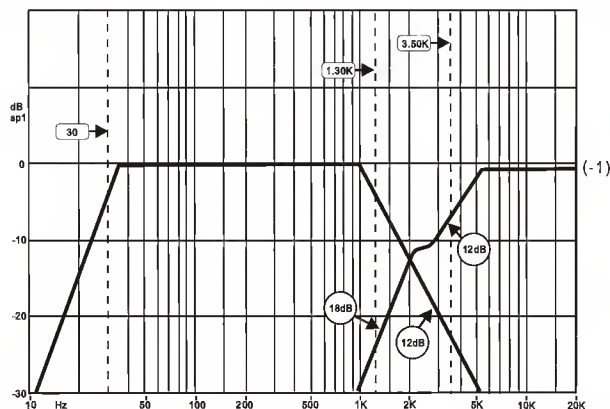
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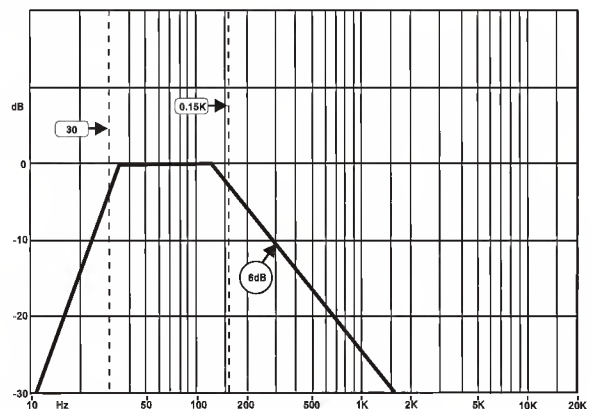
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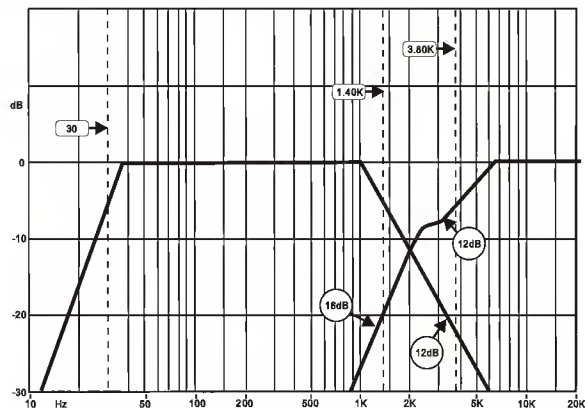
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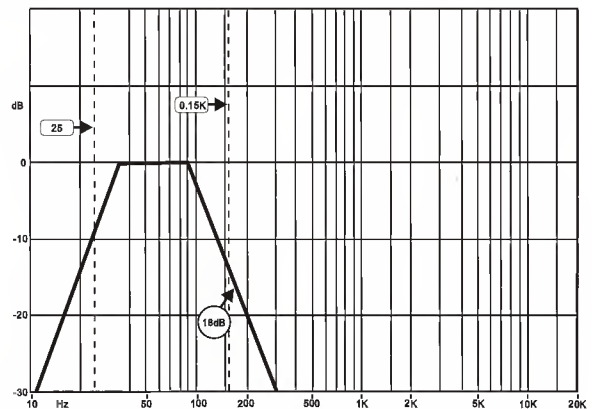
DLX-15/18B



DLX-15 M



DLX-218B

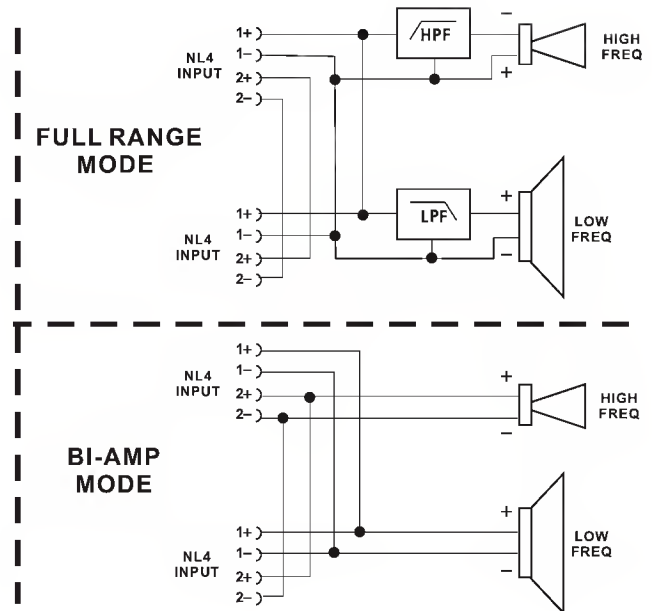


DLX™ Series

APPENDIX B - CROSSOVER BLOCK DIAGRAMS

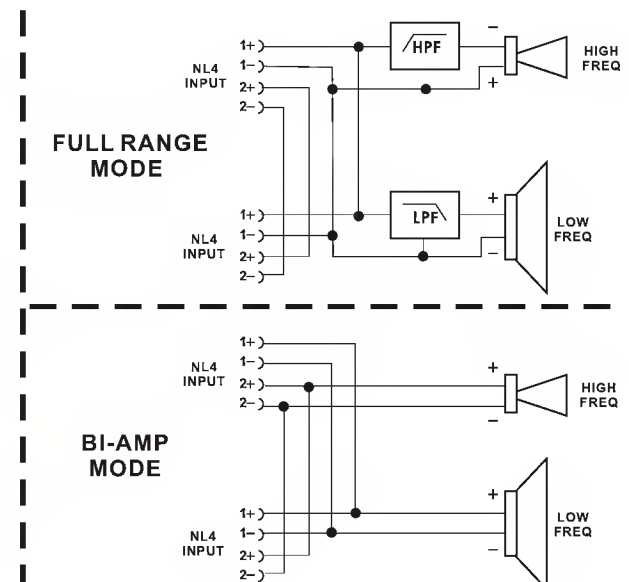
DLX-12

Block Diagram



DLX-15

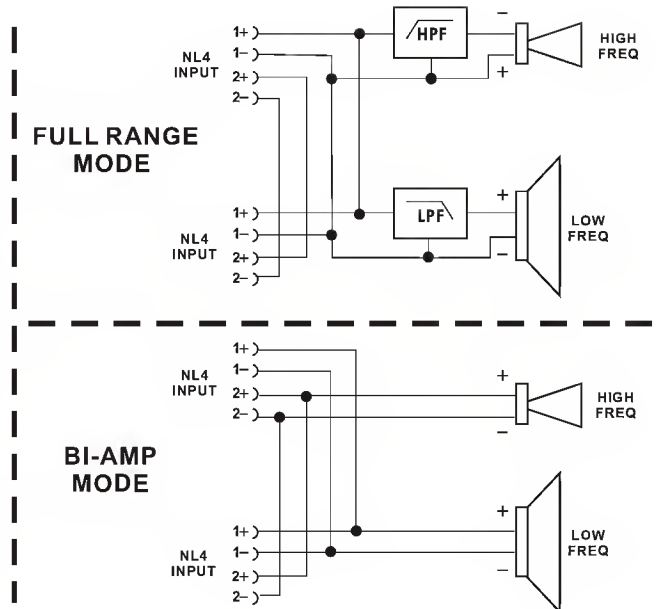
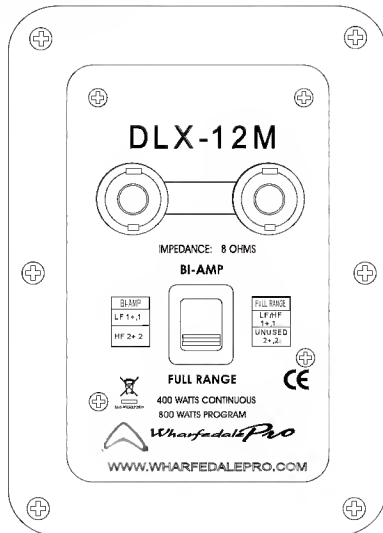
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DLX™ Series

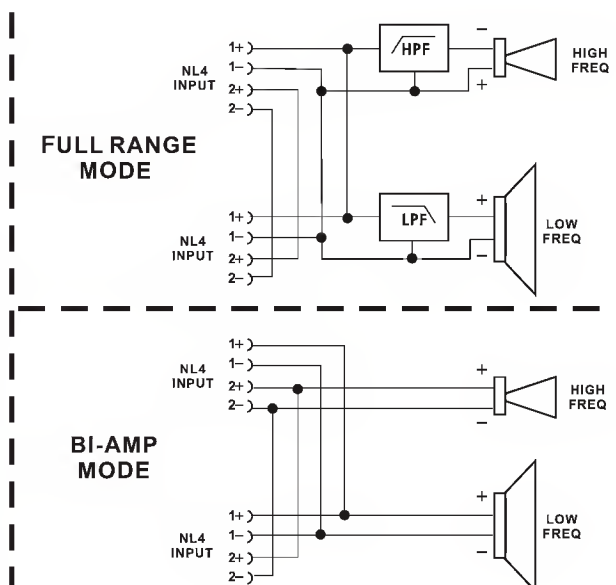
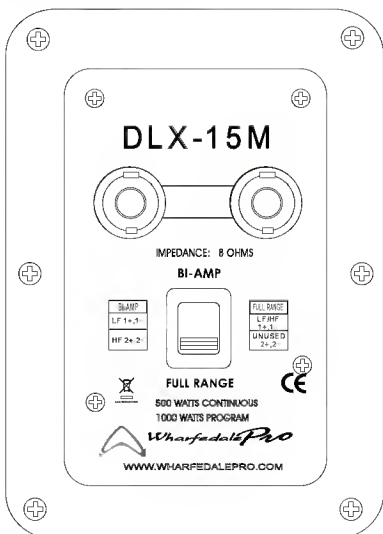
DLX-12M

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DLX-15M

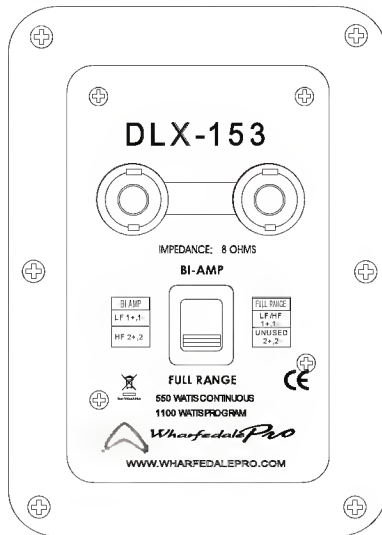
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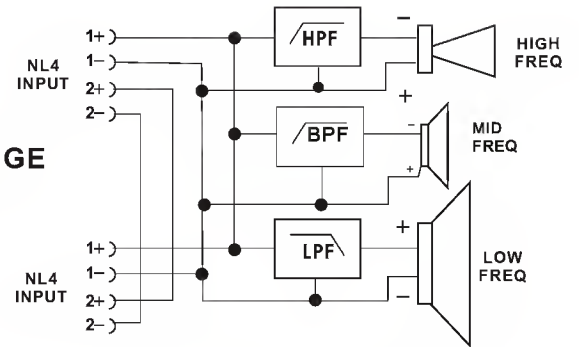
DLX™ Series

DLX-153

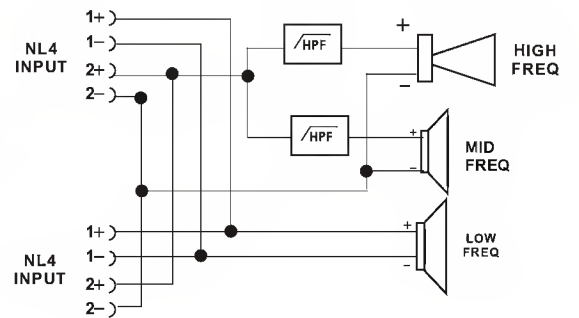
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FULL RANGE MODE

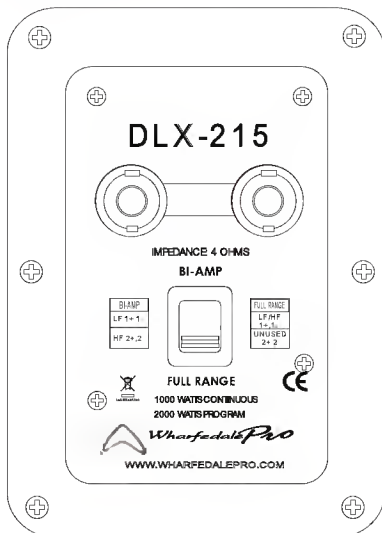


BI-AMP MODE

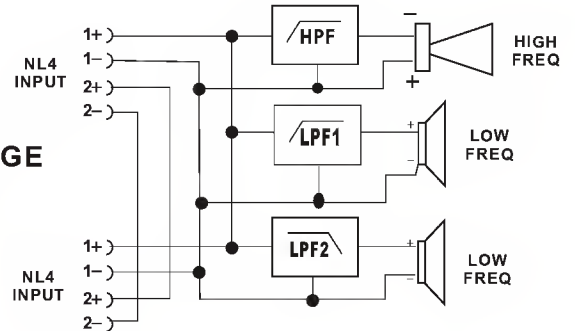


DLX-215

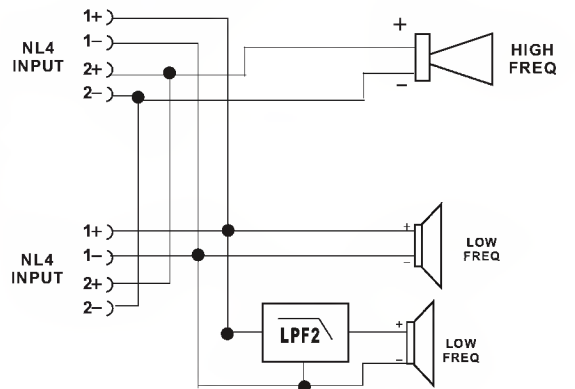
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FULL RANGE MODE



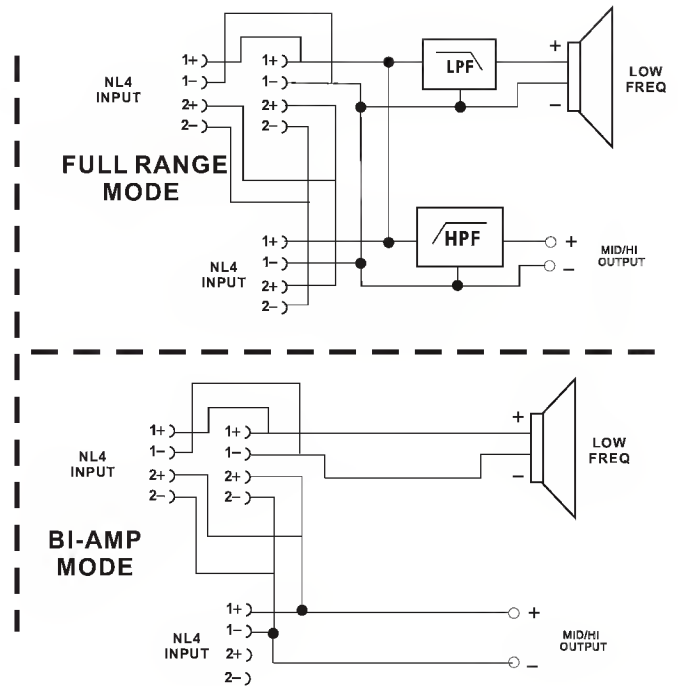
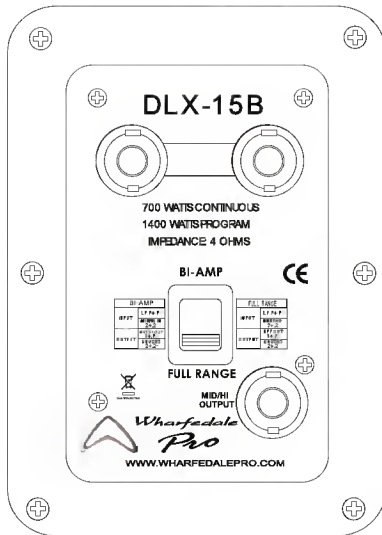
BI-AMP MODE



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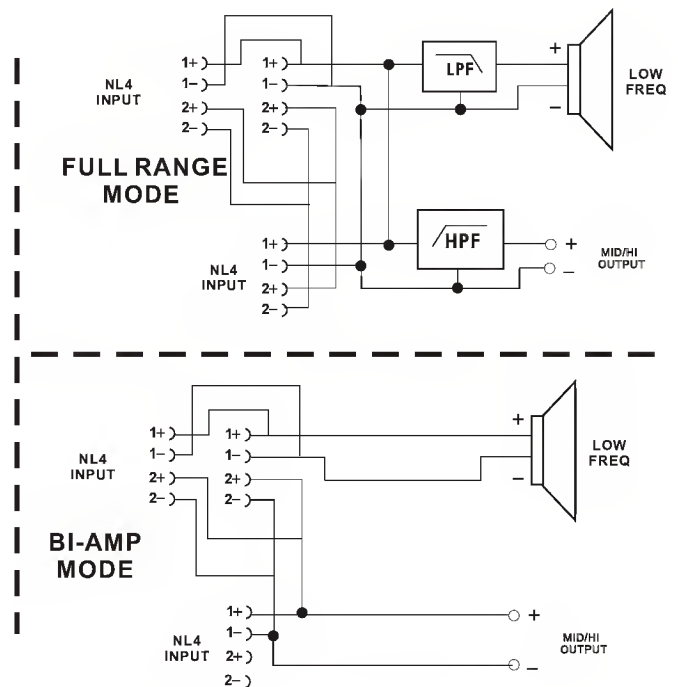
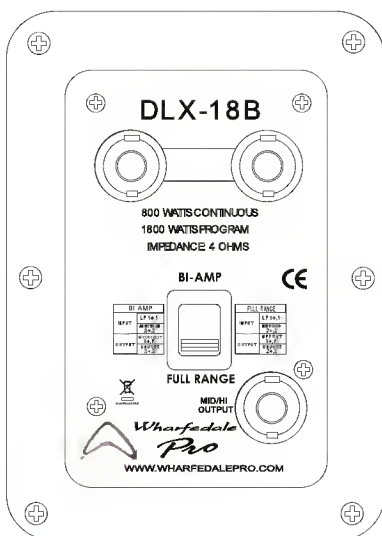
DLX-15B

Block Diagram



DLX-18B

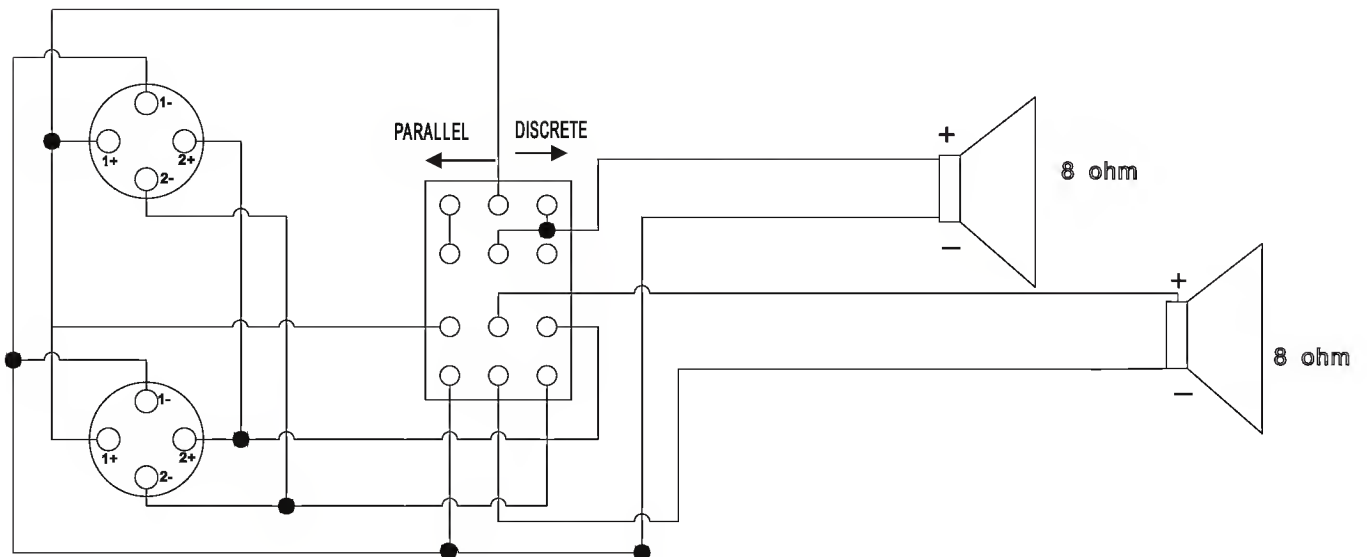
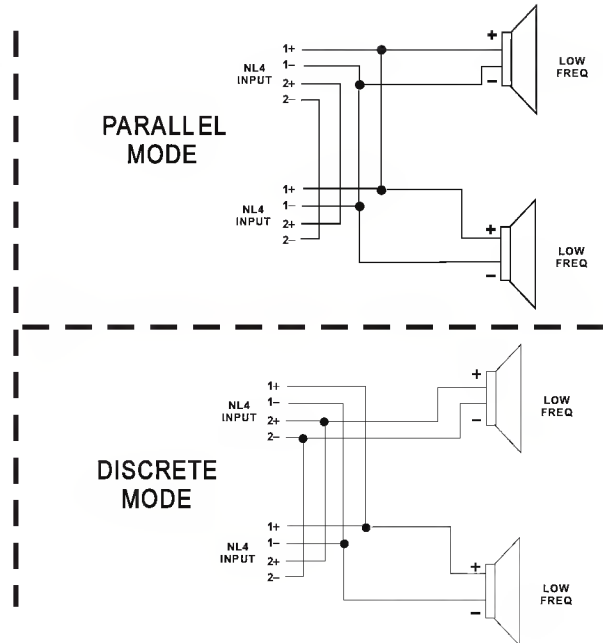
Block Diagram



DLX™ Series

DLX-218B

Block Diagram



DLX™ Series

WHARFEDALE PRO LIMITED WARRANTY

Wharfedale Pro DLX™ Series speakers are warranted of manufacturing or material defects for a period of one year from the original date of purchase. In the event of malfunction, contact your authorized Wharfedale Pro dealer or distributor for information.

*Be aware that warranty details may differ from country to country. Contact your dealers or distributor for information. These terms do not infringe your statutory rights



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